

Mr. Gunter Schlicht, President
SYSPAC Incorporated
280 W. MacArthur Boulevard
Oakland, CA 94611

Dear Mr. Schlicht:

The following responds to the questions in your letter of November 17, 1974, concerning flanges on plastic pipe.

First, you ask whether 49 CFR 193.147 requires that flanges on plastic pipe be metallic since the specifications incorporated by reference in section 192.147(a) only relate to metallic flanges. Section 192.147 provides that each flange must meet the minimum requirements of one of the referenced specifications "or the equivalent." Under this requirement, a nonmetallic flange may be used as long as it provides a level of safety equivalent to that required for a metallic flange.

Secondly, you ask if section 192.147 does not require the use of metallic flanges, what minimum safety factors must be designed into a flange joint for plastic pipe. The general design requirements of Section 192.143 would apply. Also, if a plastic flange is used, the criteria for design of plastic fittings under section 192.191 would apply, and the design criteria for plastic pipe under sections 192.121 and 192.123 would be appropriate.

In answer to your third question, yes this Department encourages the usage of innovative products that help to conserve the Nation's financial and material resources without having adverse effects on the safety of pipeline systems. Any innovation, nonetheless, must meet the requirements of the Federal gas pipeline safety standards before it may be used in the transportation of gas to which the standards apply.

Finally, you ask how you can find recognition and acceptance of your revolutionary flange in pipeline system regulated by this Department. Unfortunately, we are unable to help you in this respect because it is Department policy not to endorse proprietary items.

We appreciate your interest in pipeline safety.

Sincerely,

/signed/

Joseph C. Caldwell
Director
Office Pipeline Safety

Mr. Joseph C. Caldwell
Director of Pipeline Safety
Department of Transportation
400 - 7th Street, S. W.
Washington, D. C. 20590

Dear Mr. Caldwell:

In response to my letter dated November 14, 1974 and addressed to you, we received from your office the following document:

Regulations for the Transportation of Natural
and Other Gas by Pipeline
Parts 191 and 192, Title 49, of the Code of
Federal Regulations
Revised as of October 1, 1974.

In paragraph 192.147, Flanges and Flange Accessories, references are made relative to minimum requirement to ANSI B16.5., MSS SP-44 ANSI B16.24 or the equivalent. These standards relate to metallic flanges only which have been designed to satisfy all internal and external forces acting on a flange joint in metallic systems which, of course, are considerably higher than those acting on plastic piping systems.

The usage of PVC and PE pipe for gas distribution systems is recognized. We request, therefore, the clarification of the following questions?

- 1: Does your department enforce the strict usage of metallic flanges according to the standards mentioned above on plastic piping systems?
- 2: If your answer is not to the above, what minimum safety factors must be designed into a flange joint for plastic piping systems?
- 3: Does your department encourage the usage of innovative products that help to conserve the Nation's financial and material resources without having adverse effects on the safety requirement of pipeline systems?

4: How can we find recognition and acceptance for our revolutionary flange in pipeline systems for which your Department establishes the criteria requirements?

We are looking forward to your comments and remain,

Sincerely yours,
SYSPAC, INC.
Gunter Schlicht